

CLAIMS

1. Device for the handling of logs, especially within a trimming machine, comprising handling means for logs along a path developed between an entrance section (I) of the logs (3) to be trimmed and an exit section (U) of the trimmed logs (3'), with blades (10, 11) set along said path and intended to provide the trimming of the logs (3), characterized in that said handling means of logs also constitute means of holding or blocking the logs along said path.
2. Device, according to claim 1, characterized in that said handling and blocking means of logs are comprised of two series (H; K) of guide blades (6, 7, 8, 9; 6', 7', 8', 9') set on opposite sides of the path followed by logs, said two series (H, K) of guide blades being subdivided into a first and a second group (J, L) set on opposite sides of a vertical plane (Q), so that the guide blades of a same series (H, K) and of a same group (J, L) form two subgroups of guide blades which are set on opposite sides of the cutting plane (TJ, TL) of a corresponding blade (10, 11), said guide blades being mounted onto respective conveying means (60, 70, 80, 90, 60', 70', 80', 90') along said path followed by the logs, and the guide blades of each series (H, K) engaging the logs diametrically opposite the guide blades of the other series (K, H).
3. Device, according to claim 2, characterized in that, at least in correspondence of said blades (10, 11), said guide blades (6, 7, 8, 9, 6', 7', 8', 9') block the logs both externally and internally to said cutting planes (TJ, TL).
4. Device, according to claim 2, characterized in that said conveying means (60, 70, 80, 90, 60', 70', 80', 90') with the guide blades (6, 7, 8, 9, 6', 7', 8', 9') are made of endless belts put onto corresponding pulleys (600, 700, 800, 900, 600', 700', 800', 900') which are assembled

onto respective shafts interlocked with a corresponding motor.

5 5. Device, according to claim 2, characterized in that the guide blades (8, 9, 8', 9') of the second series (K) are set onto respective mobile supports (180, 17) allowing the adjustment of distance from the guide blades (6, 7, 6', 7') of the first series (H) in relation to the diameter of the logs to be treated.

10 6. Device, according to claim 2, characterized in that the guide blades (6, 7, 8, 9) of the first group (J) may be moved closer to or further apart from the guide blades (6', 7', 8', 9') of the second group (L) in relation to the length of the logs to be treated.

15 7. Device, according to one or more of claims 2-6, characterized in that the guide blades (8, 9, 8', 9') of said second series (K) and the guide blades (6, 6') of said first series (H) external to the cutting planes (TJ, TL) are all of the same width, whereas the guide blades (7, 7') of the first series (H) included between the cutting planes (TJ, TL) are of a greater width than the others.

25 8. Device, according to one or more of claims 2-7, characterized in that each of said guide blades (6, 7, 8, 9, 6', 7', 8', 9') exhibits a concavity, in that the guide blades (8, 9, 8', 9') of the second series (K) are mounted onto the corresponding belts so that, when they result in the space travelled by the logs (3), the respective concavities face towards the exit front (U) of the trimmed logs (3'), and in that the guide blades (6, 7, 6', 7') of said first series (H) are mounted onto the corresponding belts so that, when they result in said space, the respective concavities face towards the entrance front (I) of the logs (3) to be trimmed.

35 9. Device, according to one or more of claims 2-8, characterized in that said second group (L) of guide

blades is integral with a fixed structure comprising of two fixed sides (1) and connected to each other by girders (2), and in that said first group (J) of guide blades is integral with a structure (4, 5) which is mobile in
5 relation to the fixed one, resting on the girders (2) and interlocked with movement means (500, 501, 502, 503) which control its traverse movement parallel to the same girder(2) on which it rests.

10. Device, according to one or more of claims 2-9,
10 characterized in that, during the phase in which the guide blades of said second series (K) mover closer to or further apart from the guide blades of the first series (H), the guide blades of the second series (K) consequently move forwards or backwards.

AMENDED CLAIMS

[Received by the International Bureau on 04 June 2005 (04.06.2005) ;
original claims 1 and 2, replaced by amended claim 1;
original claims 3 to 10, unchanged but renumbered]

1. Device for the handling of logs, especially within a trimming machine, comprising handling means for logs along a path developed between an entrance section (I) of the logs (3) to be trimmed and an exit section (U) of the trimmed logs (3'), with blades (10, 11) set along said path and intended to provide the trimming of the logs (3), said handling means of logs also constituting means of holding or blocking the logs along said path, characterized in that said handling and blocking means of logs are comprised of two series (H; K) of guide blades (6, 7, 8, 9; 6', 7', 8', 9') set on opposite sides of the path followed by logs, said two series (H, K) of guide blades being subdivided into a first and a second group (J, L) set on opposite sides of a vertical plane (Q), so that the guide blades of a same series (H, K) and of a same group (J, L) form two subgroups of guide blades which are set on opposite sides of the cutting plane (TJ, TL) of a corresponding blade (10, 11), said guide blades being mounted onto respective conveying means (60, 70, 80, 90, 60', 70', 80', 90') along said path followed by the logs, and the guide blades of each series (H, K) engaging the logs diametrically opposite the guide blades of the other series (K, H).
2. Device, according to claim 1, characterized in that, at least in correspondence of said blades (10, 11), said guide blades (6, 7, 8, 9, 6', 7', 8', 9') block the logs both externally and internally to said cutting planes (TJ, TL).
3. Device, according to claim 1, characterized in that said conveying means (60, 70, 80, 90, 60', 70', 80', 90') with the guide blades (6, 7, 8, 9, 6', 7', 8', 9') are made of endless belts put onto corresponding pulleys (600, 700, 800, 900, 600', 700', 800', 900') which are assembled onto respective shafts interlocked with a corresponding

motor.

4. Device, according to claim 1, characterized in that the guide blades (8, 9, 8', 9') of the second series (K) are set onto respective mobile supports (180, 17) allowing the adjustment of distance from the guide blades (6, 7, 6', 7') of the first series (H) in relation to the diameter of the logs to be treated.

5. Device, according to claim 1, characterized in that the guide blades (6, 7, 8, 9) of the first group (J) may be moved closer to or further apart from the guide blades (6', 7', 8', 9') of the second group (L) in relation to the length of the logs to be treated.

6. Device, according to one or more of claims 1-5, characterized in that the guide blades (8, 9, 8', 9') of said second series (K) and the guide blades (6, 6') of said first series (H) external to the cutting planes (TJ, TL) are all of the same width, whereas the guide blades (7, 7') of the first series (H) included between the cutting planes (TJ, TL) are of a greater width than the others.

7. Device, according to one or more of claims 1-6, characterized in that each of said guide blades (6, 7, 8, 9, 6', 7', 8', 9') exhibits a concavity, in that the guide blades (8, 9, 8', 9') of the second series (K) are mounted onto the corresponding belts so that, when they result in the space travelled by the logs (3), the respective concavities face towards the exit front (U) of the trimmed logs (3'), and in that the guide blades (6, 7, 6', 7') of said first series (H) are mounted onto the corresponding belts so that, when they result in said space, the respective concavities face towards the entrance front (I) of the logs (3) to be trimmed.

8. Device, according to one or more of claims 1-7, characterized in that said second group (L) of guide blades is integral with a fixed structure comprising of

two fixed sides (1) and connected to each other by girders (2), and in that said first group (J) of guide blades is integral with a structure (4, 5) which is mobile in relation to the fixed one, resting on the girders (2) and interlocked with movement means (500, 501, 502, 503) which control its traverse movement parallel to the same girder(2) on which it rests.

9. Device, according to one or more of claims 1-8, characterized in that, during the phase in which the guide blades of said second series (K) move closer to or further apart from the guide blades of the first series (H), the guide blades of the second series (K) consequently move forwards or backwards.